

A RESOLUTION

05-*R*-0624

BY CITY UTILITIES COMMITTEE

A RESOLUTION AUTHORIZING THE MAYOR TO ISSUE A NOTICE TO PROCEED TO CH2M HILL/WRJ-JV FOR FC-7619-03C, ANNUAL CONTRACT FOR ARCHITECTURAL AND ENGINEERING SERVICES TO PERFORM GROUNDWATER SAMPLING, TESTING, ANALYTICAL SERVICES, REPORT WRITING AND OTHER PROFESSIONAL CONSULTATION AND ENGINEERING SERVICES AT THE CITY'S CLOSED LANDFILLS AND AT VARIOUS LOCATIONS ON BEHALF OF THE DEPARTMENT OF PUBLIC WORKS IN AN AMOUNT NOT TO EXCEED SEVEN HUNDRED SIXTY-THREE THOUSAND EIGHT HUNDRED THIRTY-FIVE DOLLARS (\$763,835.00); ALL CONTRACTED WORK SHALL BE CHARGED TO AND PAID FROM FUND ACCOUNT AND CENTER NUMBERS: 1C28 574001 M31H020491AA, AND 2P01 524001 M38201.

**WHEREAS**, the City of Atlanta did enter into FC-7619-03C, Annual Contract for Architectural and Engineering Services; and

**WHEREAS**, the Department of Public Works does require groundwater sampling, testing, analytical services, report writing and other professional consultation and engineering services at its closed landfills and at various other locations; and

**WHEREAS**, the Commissioner of the Department of Public Works and the Director of the Bureau of Purchasing and Real Estate have recommended that CH2M HILL/WRJ-JV, be authorized to perform groundwater sampling, testing, analytical services, report writing and other professional consultation and engineering services at its closed landfills and at various other locations in an amount not to exceed Seven Hundred Sixty-three Thousand Eight Hundred Thirty-five Dollars (\$763,835.00).

**NOW THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF ATLANTA, GEORGIA**, that the Mayor be and is hereby authorized to approve a Notice to Proceed with CH2M HILL/WRJ-JV, for FC-7619-03C, Annual Contract for Architectural and Engineering Services in an amount not to exceed Seven Hundred Sixty-three Thousand Eight Hundred Thirty-five Dollars (\$763,835.00); and

**BE IT FURTHER RESOLVED**, that the Director of Purchasing be and is hereby directed to prepare an appropriate Notice to Proceed.

**BE IT FURTHER RESOLVED**, that this Notice to Proceed should not become binding on the City, and the City shall incur no liability upon same until such Notice to Proceed has been executed by the Director of the Bureau of Purchasing and Real Estate and delivered to the contracting party.

**BE IT FINALLY RESOLVED**, that all services for said Notice to Proceed shall be charged to and paid from fund account and center numbers as follows:

1C28 574001 M31H020491AA	\$404,140.00
2P01 524001 M38201	<u>\$359,695.00</u>
TOTAL	\$763,835.00



SHIRLEY FRANKLIN  
MAYOR

**CITY OF ATLANTA**  
55 TRINITY AVE., SW, ATLANTA, GEORGIA 30303-0324  
SUITE 4700, CITY HALL - SOUTH  
(404) 330-6240  
FAX (404) 658-7552  
email: publicworks@atlantaga.gov

DEPARTMENT OF PUBLIC WORKS

David E. Scott, P.E.  
Commissioner

MEMORANDUM FOR: PROCESSING OF TASK ORDER

DATE: March 28, 2005

TO: Adam L. Smith, Chief Procurement Officer  
Department of Procurement

FROM: David E. Scott, P.E, Commissioner *Done Owen for DES*  
Department of Public Works

SUB: Task Order #4 to: FC-7619-03C - Annual Contract for: Architectural and  
Engineering Services  
Contractor: CH2M Hill, Inc./Williams-Russell and Johnson, Inc., JV

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**A. DESCRIPTION OF TASK ORDER**

The Department of Public Works' (DPWs') Solid Waste Services (SWS) request the processing (Legislation Preparation and NTP) of Task Order #4 of Contract No. FC-7619-03C for the following:

Scopes of Work #1

To provide general engineering services as needed in support of operation and maintenance (O&M) of the closed landfills and corrective actions to address landfill methane gas issues as required by the Environmental Protection Department (EPD) for the following four closed landfill owned by the City of Atlanta:

Key Road Landfill  
East Confederate Road Landfill  
Cascade Road Landfill  
Gun Club Road Landfill

## Scopes of Work #2

To provide continuing engineering services to fulfill the following objectives:

- Respond to EPD Consent Order – East Confederate Road Landfill
- Respond to Cascade Road Groundwater Contamination and Methane Gas Issues
- Respond to Key Road Groundwater Contamination and Methane Gas Issues
- Respond to Cascade Road Landfill Gas System Repair

Further explanations of the above Scopes are detailed in the attached proposals.

## **B. NEED FOR TASK ORDER**

This Task Order is required to enable the City of Atlanta and the Department of Public Works to keep each landfill in compliance with applicable EPD regulatory criteria.

## **C. TASK ORDER FEE**

Scope #1 total project fee amount is \$359,695.00

Scope #2 total project fee amount is \$404,140.00

Total \$763,835.00

Both fee amounts appear to be in line with Exhibit C of the Contract. Attached is the Cost Proposal.

## **D. PERFORMANCE INFORMATION**

The Contractor has performed in a satisfactory manner on all three previous Task Orders.

If additional information is needed, please feel free to contact Sharon Gardner at Ext. 6578.

DES/sg

### Attachments:

1. Request and Proposal for Scope of Work
2. Cost Proposal
3. Requisitions

cc: Donna Owens, Department of Public Works  
Althea Smith, Department of Public Works  
**James Swope, Department of Public Works – Contact**  
**Katrina Taylor, Department of Public Works - Contact**  
Cathy Martin, Department of Procurement  
Anthony Stanley, Department of Procurement  
Contracting, Department of Public Works / File

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**DATE NEEDED** March 28, 2005

TOTAL

DATE \_\_\_\_\_



**CH2MHILL**



williams russell and johnson, inc.  
engineers • architects • planners

CH2M HILL  
115 Perimeter Center Place NE  
Suite 700  
Atlanta, GA 30346-1278  
Tel 770.604.9085  
Fax 770.604.9183

March 28, 2005

Mr. James Swope  
Department of Public Works, Solid Waste Services  
68 Mitchell Street S.W.  
Suite 4800 City Hall South  
Atlanta, GA 30335-0324

Subject: Proposal to Provide Engineering Services for Post-closure Care Support at Key Road, East Confederate Road, Gun Club Road, and Cascade Road Landfills  
City of Atlanta A/E Services Contract – FC No. FC-7619-04C

Dear Mr. Swope:

The CH2M HILL /WRJ, Incorporated Joint Venture (JV) appreciates the opportunity to be of continued service to the City of Atlanta (COA). This proposal presents our proposed scope of work to provide continuing engineering services, including the post-closure care support activities, at the following four closed landfills owned by the COA:

- Key Road Landfill
- East Confederate Road Landfill
- Cascade Road Landfill
- Gun Club Road Landfill

This proposal has been prepared based on our understanding of the site conditions at each landfill and previous discussions with you regarding the regulatory compliance status of each landfill.

## Purpose and Scope

The JV will perform the additional tasks necessary to keep each landfill in compliance with the applicable Georgia Environmental Protection Division (EPD) regulatory criteria. The work will be performed to complete the following objectives:

- Maintain compliance at each landfill by collecting groundwater and surface water samples from each landfill semiannually in accordance with the EPD-approved monitoring program.
- Maintain storm water compliance by collecting samples and preparing updated storm water pollution prevention plans (SWP3s) for each landfill.

- Provide engineering services on an as needed basis to conduct contamination assessment and remediation as required by the EPD due to exceedances of the maximum contaminant levels (MCLs) at the landfills.
- Provide general engineering consulting services on an as needed basis in support of operation and maintenance (O&M) of the closed landfills and corrective actions to address landfill methane gas issues as required by the EPD.

The following three tasks will be performed to fulfill these objectives:

- Task 1: Groundwater/Surface Water Monitoring and Reporting
- Task 2: Storm Water Monitoring and Updating the SWP3's.
- Task 3: Provide Additional Engineering Services

### **Task 1 – Ground Water/Surface Water Monitoring and Reporting**

The COA is required to conduct groundwater and surface water monitoring at each landfill semiannually in accordance with the EPD-approved Groundwater Monitoring Plan. The monitoring includes the collection and analyses of groundwater and surface water samples, and the preparation and submittal of monitoring reports to the EPD. The work scopes that will be performed as part of the groundwater sample collection and reporting tasks are discussed below.

#### **Sample Collection and Analyses**

The JV will collect groundwater samples from the existing monitoring wells at the landfills and surface water samples from the designated locations specified in the EPD-approved Groundwater Monitoring Plan for each landfill. The samples will be collected in accordance with the EPD-approved Groundwater Monitoring Plan and the U.S. Environmental Protection Agency (EPA) Region IV standard operating procedures (SOPs). Physical parameters such as pH, temperature, dissolved oxygen (DO), conductivity, oxidation-reduction potential (ORP), and turbidity will be measured in the field at the time of sample collection.

The monitoring wells and piezometers at each landfill site will be gauged at the beginning of each sampling event. Three times the calculated volume of water in each well will be removed and measurements of pH, temperature, conductivity, turbidity, DO, and ORP will be recorded. The purge water collected during the sampling event will be containerized, transported, and disposed of in the condensate sump associated with the landfill gas management systems at Key Road, Gun Club Road, and Cascade Road landfills. The wastewater from the sampling events at the East Confederate Road Landfill will be transported and disposed of at the Key Road Landfill gas management system. Based on historical test results, the JV has assumed that the water generated during purging will be non-hazardous.

Sampling documentation and physical parameter measurements during sampling will be performed in accordance with EPA Region IV SOPs. All field documentation will be entered into a field database, which will be imported into the main database at the conclusion of the sampling event.

The groundwater samples will be shipped to a certified laboratory for chemical analyses. The JV understands that the testing will include the collection of Appendix I parameters twice a year and Appendix II parameters once a year. The Appendix II analyses will be conducted during the first event of 2005. Any Appendix II parameter that is detected is required to be analyzed in all wells for the subsequent sampling event. In 2004, the Appendix II semivolatile organic compound (SVOC) bis 2-ethylhexyl phthalate was detected in a groundwater sample at Key Road Landfill; therefore, groundwater samples from the Key Road Landfill will also be analyzed for this SVOC parameter. For costing purposes, the JV has estimated that one Appendix II parameter (using the worst case scenario: SVOC) will be detected and require analyses in all monitoring wells during the second event of 2005. In addition, geochemical parameters will be collected from the East Confederate Road and Gun Club Road sites in support of assessment of corrective measures activities. The required Appendix I and II analytical parameters and the proposed testing methods are listed in Table 1.

The JV has assumed that an appropriate number of quality control (QC) samples will be collected during the sampling events. These samples are estimated to include: 10 percent field duplicates, trip blanks, 5 percent field blanks, one set of matrix spike and matrix spike duplicate, and equipment blanks as necessary (one sample per sampling event). The cost proposal is based on the number of wells and the number of surface water and associated quality assurance/quality control (QA/QC) samples to be collected at each of the four landfill sites listed in Table 2.

The analytical results will be reported for EPA Level II data QA/QC. The sample results will be provided in draft form within 21 calendar days of sample receipt by the laboratory, followed by final reporting within 28 calendar days of sample receipt by the laboratory. The laboratory will also perform the necessary QA/QC analyses, checks, and documentation for the specified level of data quality. The laboratory will forward the results electronically. These results will be incorporated into the data management system and validated.

### Reporting

Semiannual monitoring and sampling reports will be issued for each landfill upon the receipt of groundwater and surface water test results (two per landfill or a total of eight reports). The reports will include summaries of the field activities performed, a summary of investigation findings, and conclusions and recommendations. Tables, figures, and appendices will also be included with each report. The JV will prepare draft and final versions of each report. The draft will be submitted to the COA for review and comment. Following incorporation of the EPD's comments, the final report will be submitted to EPD.

## **Task 2 – Storm Water Monitoring and Updating the SWP3s**

The EPD's General National Pollutant Discharge Elimination System (NPDES) Storm Water Permit specifies that the storm water monitoring must be conducted, at a minimum, on an annual basis. Storm water samples have not been collected at the four landfills since 1998. In addition, the General NPDES Storm Water Permit requires that an SWP3 be prepared for each landfill. In addition, the SWP3s must be reviewed and the plans must be updated annually. The work scopes that will be performed as part of the surface water sample collection and reporting tasks are discussed below.

### **Sample Collection and Analyses**

The NPDES permit requires the collection of storm water samples from each outfall for the analysis of the following:

- Ammonia;
- Magnesium (total and dissolved);
- Nitrate plus nitrate nitrogen;
- Chemical oxygen demand (COD);
- Total dissolved solids (TDS);
- Total organic carbon (TOC), oil and grease;
- pH; and
- Total arsenic, barium, cadmium, chromium, cyanide, lead, mercury, selenium, and silver.

Based on the SWP3s, the following number of outfalls is located at each landfill:

- Two at Cascade Road Landfill,
- Five at Gun Club Road Landfill, and
- Five at Key Road Landfill.

Because a SWP3 has not been created for East Confederate Road Landfill, it is assumed that five outfalls are located at the site.

### **Create SWP3 (East Confederate) and Update Existing SWP3s**

SWP3s were created for Cascade Road, Gun Club Road, and Key Road Landfills in 1998 and have not been updated in 6 years. The JV will review the available information for the landfills and conduct site visits to prepare updates to the SWP3s.

An SWP3 has not been developed for East Confederate Road Landfill. The JV will review the available information for the landfill and conduct a site visit to prepare an SWP3 for the East Confederate Road Landfill, with a format similar to the SWP3s prepared for the other landfills. A draft version of the SWP3 will be submitted to the COA for review. Following the COA's approval, the final SWP3 will be completed and submitted.



Once the SWP3s are updated and complete, the JV will conduct a 1-day training class on implementation of the SWP3s. The class will be held for landfill personnel at one of the landfill sites. The training class will include classroom instruction and a facility walk-through to provide examples of the requirements outlined in the SWP3s. The purpose of the training is to teach personnel how to comply with the SWP3s.

### **Task 3 - Provide Additional Engineering Services**

Based on discussions with the EPD, groundwater contamination and methane gas exceedance issues at the landfills may result in Consent Orders. The JV will provide engineering expertise and consultation for assessment and remediation of groundwater contamination and landfill gas corrective actions. In addition, the JV will also provide engineering support services to the COA for planning, managing, O&M, and overseeing work performed by others for the closed landfills. The JV will perform these activities on an as-needed basis upon approval by the City.

Engineering services associated with groundwater contamination may include the following:

- Develop responses to EPD comments and orders (Consent Orders, Notice of Violations [NOV], Notice of Deficiencies [NOD]) associated with groundwater contamination issues.
- Develop and implement investigations to support Assessment of Corrective Measures (ACMs) for groundwater contamination.
- Implement corrective actions as required by the EPD.

Engineering services associated with methane gas issues may include the following:

- Monitor and or oversee monitoring by others of the landfill gas monitoring system.
- Review data and develop and implement monitoring system modifications.
- Review data and develop and implement modifications to the landfill gas collection and flare systems to meet performance objectives.
- Develop landfill gas remediation plans and implement corrective actions.

Costs to implement landfill gas remediation plans are not provided in this proposal, because the strategies for individual landfills have not been developed.

### **Assumptions**

CH2M HILL/WRJ has made the following assumptions to complete this proposal:

- Purge water collected during groundwater sampling events will be containerized, transported, and disposed of in the condensate sump associated with the landfill gas management systems at Key Road, Gun Club Road, and Cascade Road landfills. Purge water from the East Confederate Road Landfill will be transported and disposed of at the Key Road Landfill gas management system.
- The COA will provide CH2M HILL access to each of the landfill sites to perform both the groundwater and storm water sampling tasks.
- The collection of storm water samples will be performed on weekdays during normal business hours to limit potential access problems that would arise if the samples were collected during the weekend or evenings.
- Because a SWP3 has not been created for East Confederate Road Landfill, it is assumed that five outfalls are located at the site. CH2M HILL/WRJ will rely on previous survey data to locate these outfalls. The cost to survey these outfalls is not included in this proposal.

## Schedule

The groundwater and surface water monitoring task (Task 1) will be initiated upon the COA's approval and will be conducted in accordance with the existing semiannual sampling schedule (May and November). The storm water task (Task 2) will be initiated upon the COA's approval. The JV will attempt to collect storm water samples by the end of the 2005. Because the storm water sampling event must coincide with a storm event, a specific date cannot be stipulated. Implementation of Task 3 (Provide Additional Engineering Services) will be initiated upon the COA's approval. A schedule for the engineering services described in Task 3 will be provided to the COA on an as needed basis, and will be developed in consultation with the COA as each need arises.

## Subcontracting & Outside Services

In the performance of the services outlined herein, the JV will utilize the following team of subcontractors who provide specialty services

<u>SUBCONTRACTORS</u>	<u>SERVICE</u>	<u>CONTRACT AMOUNT</u>
Gulf Coast Analytical Laboratories, Inc	Analytical Laboratory	\$86,790
Professional Technical Support Services, Inc	Groundwater Sampling	\$10,800

These subcontractors have been supporting the COA Landfill program since 2000. To insure program continuity the JV proposes to keep the primary subcontractors intact. These

subcontractors are in addition to the JV pool of team subcontractors as approved by the prime contract. Acceptance of this proposal shall be deemed as the JV's approval to contract with the specialty subcontractors as required.

## Cost

This work will be performed under the terms and conditions of Architectural and Engineering Services Agreement between the COA and the JV. The work will be performed under per diem rates and expense markups established in the contract. A detailed breakdown of labor and expense costs is provided on Tables 3 (Groundwater/Surface Water Monitoring), Table 4 (Storm Water/SWP3), and Table 5 (Engineering Services). A simplified breakdown of costs by task is presented on the table below.

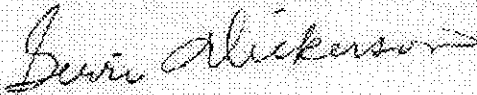
<u>Task Description</u>	<u>Estimated Cost (\$)</u>
<b>TASK 1: Groundwater/Surface Water Monitoring and Reporting</b>	
Cascade Road	\$45,220
East Confederate Road	\$49,963
Gun Club Road	\$51,457
Key Road	\$52,819
<b>Subtotal Task 1</b>	<b>\$199,459</b>
<b>TASK 2: Storm Water Monitoring and Updating the SWP3s</b>	
Cascade Road	\$9,620
East Confederate Road	\$20,967
Gun Club Road	\$13,122
Key Road	\$13,493
<b>Task 2 Subtotal</b>	<b>\$57,202</b>
<b>TASK 3: Provide Additional Engineering Services</b>	<b>\$103,034</b>
<b>TOTAL PROJECT COSTS (Tasks 1 through 3)</b>	<b>\$359,695</b>

MR. SWOPE  
PAGE 8  
MARCH 28, 2005

We look forward to working with you on this project. If you have any questions or require additional information, please contact me at (770) 604-9182, extension 348, or David Beverly at extension 598.

Sincerely,

CH2M HILL/WRJ - A JOINT VENTURE



Gerri Dickerson, P.E.  
Vice President



Fred Artis, WRJ, Inc.

Deputy Program Manager

Attachment

cc: Donna Owens, Deputy Commissioner, City of Atlanta  
James Swope, Department Manager, City of Atlanta  
David Beverly, CH2M HILL/WRJ JV

**Table 1. Proposed List of Laboratory Analytical Testing Methods**

Samples	Analyses	Analytical Method
<b>Groundwater Samples:</b>		
	<b>Appendix I Testing:</b>	
	Metals (Total)	SW-846 3010/3020-SW6010 /7000 Series
	Volatile Organic Compounds (VOCs)	SW-846 8260B
	EDB and DBCP	EPA 504.1
	<b>Appendix II Testing:</b>	
	Metals (Total)	SW-846 3010/3020-SW6010 /7000 Series
	VOCs	SW-846 8260B
	EDB and DBCP	EPA 504.1
	Semivolatile Organic Compounds (SVOCs)	SW-846 8270
	Organochlorine Pesticides/PCBs	SW-846 8081A/8082
	Chlorinated Herbicides	SW-846 8151
	Cyanide	SW-846 9010B
	Sulfide	SW-846 9030A
	<b>GeoChemical Testing:</b>	
	Alkalinity	EPA 310.1
	Nitrate/Nitrite	EPA 353.2
	Sulfate	EPA 375.4
	TOC	SW-846 9060
	Ferrous Iron	AS 3500D
	Sulfide	EPA 376.1
	MEE	RSK 175
<b>Surface Water Samples:</b>		
	10 Metals (Total)	SW-846 3010/3020-SW6010 /7000 Series
	Cyanide	Sw-846 9010/9014
	Chloride	SW-846 9253
	Total Organic Carbon	EPA 415.2
	Chemical Oxygen Demand	EPA 410.4

**Table 2. Basis for Number of Groundwater and Surface Water Samples for 2005**

Sample Type	Key Rd Landfill	Cascade Rd Landfill	E. Confederate Rd Landfill	Gun Club Road Landfill
<b>Groundwater</b>				
Number of Wells at Site	10	13	19 [A]	16
Standard samples (Appendix I)	32	26	38	32
Field duplicates	4	4	4	4
MS/MSD	4	4	4	4
Trip Blanks	2	2	2	2
Field Blanks	2	2	2	2
Equipment Blanks	2	2	2	2
<b>Appendix I Total:</b>	<b>46</b>	<b>40</b>	<b>52</b>	<b>46</b>
Standard (Appendix II)	12	4	6	6
Additional Appendix II analyses (SVOCs)	24	13	19	16
Geochemical Parameters	NA	NA	12 [A]	16 [A]
<b>Surface Water</b>				
Standard samples	10	8	8	8
Field duplicates	2	2	2	2
<b>Total:</b>	<b>12</b>	<b>10</b>	<b>10</b>	<b>10</b>

A – Includes additional proposed wells or sampling associated with activities in this proposal



**TABLE 3**  
**SUMMARY OF COST ESTIMATE -**  
**City of Atlanta A/E Services Contract - FC-7619-04C**  
**Groundwater and Surface Water Monitoring**

1. LABOR	Labor Category	Labor Rate	Task 1 - Groundwater and Surface Water Monitoring				Total Hours	Total Cost
			Cascade Road	E Confederata Road	Gun Club Road	Key Road		
	Engineer 8	\$174.74	2	2	2	2	8	\$1,398
	Engineer 7	\$150.14						
	Engineer 6	\$123.11	51	49	49	48	197	\$24,253
	Engineer 5	\$100.13	75	75	75	75	300	\$30,039
	Engineer 4	\$83.46	44	43	44	43	174	\$14,522
	Engineer 3	\$71.79	3	3	2	2	10	\$718
	OFFICE/Designer 1	\$55.96	24	23	24	23	94	\$5,260
	Designer 4	\$92.22	23	22	23	22	90	\$8,300
<b>TOTAL LABOR</b>								
		Hours	222	217	219	215	873	\$34,450
		\$	\$21,490	\$21,012	\$21,172	\$20,817		
2. INTERNAL EXPENSES	Category	Rate	# of Units	# of Units	# of Units	# of Units	Total Quantity	Total Cost
	Copies (each)	\$0.06	11,000	11,000	11,000	11,000	44,000	\$2,640
	Car Travel (per day)	\$42.00	4	4	4	4	16	\$672
	Truck Travel (per day)	\$68.00					0	\$0
<b>TOTAL INTERNAL EXPENSES</b>								
			\$828	\$928	\$828	\$923		\$3,512
3. EXTERNAL EXPENSES	Category	Rate	# of Units	# of Units	# of Units	# of Units	Total Quantity	Total Cost
	Meals/Lodging	Cost						\$0
	Shipping/Postage	Cost	\$600	550	\$550	\$550		\$2,250
	Subcontracting/Laboratory	Cost	\$22,178	\$27,448	\$28,782	\$30,499		\$108,907
	Subcontracting/Drilling/DPT/Surv	Cost						\$0
	Equipment/Supplies	Cost						\$0
	Miscellaneous	Cost	125	\$125	\$125	\$125		\$500
<b>SUBTOTAL EXTERNAL EXPENSES</b>								
			\$22,903	\$28,123	\$29,457	\$31,174		\$111,657
<b>TASK TOTAL</b>								
			\$45,220	\$49,963	\$51,457	\$52,819		\$199,459

**TABLE 4**  
**SUMMARY OF COST ESTIMATE -**  
**City of Atlanta A/E Services Contract - FC-7619-04C**  
**Storm Water Monitoring and SWP3s**

1. LABOR									
Labor Category	Labor Rate	Task 2 - Storm Water Monitoring and SWP3s					Key Road	Total Hours	Total Cost
		Cascade Road	E. Confederate Road	Gun Club Road					
Engineer 8	\$174.74	1	1				1	4	\$689
Engineer 7	\$150.14								
Engineer 6	\$123.11	11	8	11			12	42	\$5,171
Engineer 5	\$100.13	37	79	65			66	247	\$24,732
Engineer 4	\$83.46	25	57	25			25	142	\$11,851
Engineer 3	\$71.79	1	2	1			1	5	\$359
OFFICE/Designer 1	\$55.56	6	19				7	38	\$2,126
Designer 4	\$92.22	3	9				2	15	\$1,383
TOTAL LABOR		84	185	110			114	493	\$46,322
		\$8,004	\$16,699	\$10,624			\$10,995		
2. INTERNAL EXPENSES									
Category	Rate	# of Units	# of Units	# of Units	# of Units	# of Units	Total Quantity	Total Cost	
Copies (each)	\$0.06	5000	6,000	3,500	3,500		18,000	\$1,080	
Car Travel (per day)	\$42.00	4	4				16	\$572	
Truck Travel (per day)	\$68.00						0	\$0	
TOTAL INTERNAL EXPENSES		\$468	\$528	\$376	\$378			\$1,752	
3. EXTERNAL EXPENSES									
Category	Rate							Total Cost	
Meals/Lodging	Cost							\$0	
Shipping/Postage	Cost	\$300	\$200	\$200	\$200			\$900	
Subcontracting: Laboratory	Cost	\$648	\$1,620	\$1,620	\$1,620			\$5,508	
Subcontracting: Drilling/DPT/Surv	Cost		\$1,620					\$1,620	
Equipment/Supplies	Cost	200	\$300	\$300	\$300			\$1,100	
Miscellaneous	Cost							\$0	
SUBTOTAL EXTERNAL EXPENSES		\$1,148	\$3,740	\$2,120	\$2,120			\$9,128	
INDIVIDUAL SITE TOTALS		\$8,620	\$20,967	\$13,122	\$13,493			\$57,202	
TASK TOTAL									



**TABLE 5**  
**SUMMARY OF COST ESTIMATE -**  
**City of Atlanta A/E Services Contract - FC-7619-04C**  
**Engineering Services**

1. LABOR		Task 3 - Engineering Services		Total	Total
Labor Category	Labor Rate	Cascade Road	Hours	Cost	
Engineer 8	\$174.74	58	58	\$10,135	
Engineer 7	\$150.14	40	78	\$9,603	
Engineer 6	\$123.11	78	285	\$28,537	
Engineer 5	\$100.13	285	150	\$12,519	
Engineer 4	\$83.46	150	8	\$574	
Engineer 3	\$71.79	8			
OFFICE/Designer 1	\$55.96	49	49	\$2,742	
Designer 4	\$92.22	50	50	\$4,611	
<b>TOTAL LABOR</b>		<b>718</b>	<b>578</b>	<b>\$74,727</b>	
2. INTERNAL EXPENSES		# of Units		Total Quantity	Total Cost
Copies (each)	Rate	12500	12,500	\$750	
Car Travel (per day)	\$0.06	5	5	\$210	
Truck Travel (per day)	\$42.00	10	10	\$680	
<b>TOTAL INTERNAL EXPENSES</b>		<b>\$1,640</b>		<b>\$1,640</b>	
3. EXTERNAL EXPENSES		Rate		Total Cost	
Meals/Lodging	Cost			\$0	
Shipping/Postage	Cost	\$650		\$650	
Subcontracting: Laboratory	Cost	\$918		\$918	
Subcontracting: Drilling/DPT/Surv	Cost	\$21,600		\$21,600	
Equipment/Supplies	Cost	2500		2500	
Miscellaneous	Cost	1000		1000	
<b>SUBTOTAL EXTERNAL EXPENSES</b>		<b>\$26,668</b>		<b>\$26,668</b>	
<b>INDIVIDUAL SITE TOTALS</b>		<b>\$103,035</b>			
<b>TASK TOTAL</b>					<b>\$103,035</b>



**CH2MHILL** /



**williams-russell and johnson, inc.**  
engineers • architects • planners

**CH2M HILL**

115 Perimeter Center Place NE

Suite 700

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Tel 770.604.8095

Fax 770.604.9183

February 25, 2005

Mr. James Swope  
Department of Public Works, Solid Waste Services  
68 Mitchell Street S.W.  
Suite 1800 City Hall South  
Atlanta, GA 30335-0324

**Subject:** Proposal to Provide Engineering Services for the Key Road, East Confederate Road, and Cascade Road Landfills  
City of Atlanta A/E Services Contract -- FC No. FC-7619-04C

Dear Mr. Swope:

The CH2M HILL/WRJ, Incorporated Joint Venture (JV) appreciates the opportunity to be of continued service to the City of Atlanta (City). This proposal presents the proposed scope of work to provide continuing engineering services at the following three closed landfills owned by the City:

- Key Road Landfill
- East Confederate Road Landfill
- Cascade Road Landfill

This proposal has been developed based on our understanding of the site conditions at each landfill, previous discussions with you, review of the draft Consent Order received for the East Confederate Road Landfill, and the results of the February 7, 2005 meeting with the Georgia Environmental Protection Division (EPD).

The following four tasks will be performed to fulfill these objectives:

- Task 1—Respond to EPD Consent Order – East Confederate Road Landfill
- Task 2—Cascade Road Groundwater Contamination and Methane Gas Issues
- Task 3—Key Road Groundwater Contamination and Methane Gas Issues
- Task 4—Cascade Road Landfill Gas System Repair

## **Purpose and Scope**

The JV will perform the tasks necessary to keep each landfill in compliance with the applicable EPD regulatory criteria. In the case of the East Confederate Road Landfill, the JV will develop and implement a strategy to address groundwater contamination and methane gas issues in response to the EPD's September 2004 draft Consent Order. During the February 7, 2005 meeting, the EPD also requested that the City address groundwater

contamination and methane gas issues associated with the Cascade Road and Key Road Landfills. The work will be performed to complete the following objectives:

- Develop and implement a strategy to address groundwater contamination and methane gas issues in response to the EPD's draft Consent Order issued for the East Confederate Road Landfill.
- Develop and implement a strategy to address groundwater contamination and methane gas issues for the Cascade Road Landfill in response to February 7, 2005 meeting.
- Develop and implement a strategy to address groundwater contamination and methane gas issues for the Key Road Landfill in response to February 7, 2005 meeting.
- Provide engineering and oversight for field services associated with the repair of the landfill gas collection system header pipe located at the Cascade Road.

The following four tasks will be performed to fulfill these objectives:

- Task 1—Respond to EPD Consent Order – East Confederate Road Landfill
- Task 2—Cascade Road Groundwater Contamination and Methane Gas Issues
- Task 3—Key Road Groundwater Contamination and Methane Gas Issues
- Task 4—Cascade Road Landfill Gas System Repair

The scope of work for each task is presented below.

### **Task 1 – Respond to EPD Consent Order – East Confederate Road Landfill**

In September 2004, the EPD issued a draft Post-closure Inspection/Consent Order for East Confederate Road Landfill to the City. The JV understands that the City intends to correct the groundwater contamination and methane gas violations presented in the draft Consent Order. The groundwater contamination issues will be addressed by initiating an Assessment of Corrective Measures (ACMs). The methane gas issue requires further evaluation before a corrective measure can be proposed.

#### **Task 1a – Assessment of Corrective Measures**

Chlorinated solvents were detected at concentrations that exceeded the maximum contaminant concentration (MCL) at monitoring well GWC-5. In accordance with EPD guidelines, the vertical and horizontal extent must be delineated, and an ACM for groundwater must be prepared. The JV will develop and implement a strategy for initiating and completing the ACMs for groundwater at the East Confederate Road Landfill. These activities will include the installation of two additional monitoring wells (a bedrock monitoring well near GWC-5 and a shallow monitoring well across the concrete channel from GWC-5) to determine the vertical and horizontal extent of chlorinated solvents. Prior to installation of the shallow well, up to 4 groundwater samples will be collected using direct-push technology (DPT) to determine if groundwater contamination exists on the opposite side of the concrete channel. If groundwater contamination is not detected on the

opposite side of the channel, the JV will install a shallow monitoring well across the channel and downgradient from GWC-5. If groundwater contamination is detected, the JV will contact the City to discuss alternate plans to delineate the downgradient extent of contamination.

Groundwater samples from the DPT borings and two monitoring wells (bedrock and shallow) will be analyzed for volatile organic compounds (VOCs). In addition, the newly installed wells and up to six previously installed wells will be analyzed for natural attenuation parameters (total organic carbon, nitrates, sulfates, and ferrous iron) to determine if reductive dechlorination is occurring in groundwater. The test data collected during this effort and available site information will be used to prepare an ACM Report for submission to the EPD. The ACM Report will be prepared in accordance with the EPD's ACM guidance documentation. The JV will prepare draft and final versions of the ACM Report. The draft report will be submitted for the City's review and comment. Following the incorporation of the City's review comments, a final report will be submitted to the EPD.

#### **Task 1b – Methane Gas Issues**

The JV understands that methane gas values have exceeded the lower explosive limit (LEL) at methane monitoring points MM-4 and MM-6. These monitoring points are a considerable distance inside the property boundary. Based on discussions with the EPD, if methane gas does not exceed the LEL at the property boundary, the site is in compliance.

The JV will collect and review available data to evaluate the trends of the methane gas LEL exceedences. Once the review has been conducted, the JV will collect methane gas readings from each existing methane monitoring point at the site in accordance with the *Post Closure Care, Operations and Maintenance Manual, Confederate Ave. Construction and Demolition Debris Landfill* (WESTON, October 1999). If the values continue to exceed the LEL, the JV will install two additional methane-monitoring points as close as practical to the property boundary near MM-4 and MM-6. Methane gas measurements will be recorded in the newly installed points. If methane levels are below the LEL, no further action is required. If methane levels are above the LEL, preparation of a methane remediation plan will be required. Costs to develop a methane remediation plan are not included in this proposal.

#### **Assumptions:**

- City will coordinate with the National Guard to provide the JV with access to the landfill site to perform ACM activities.
- Drilling locations are accessible with a truck-mounted drill rig.
- Bedrock monitoring well will not exceed a depth of 75 feet.
- City will obtain access to install the DPT borings and shallow monitoring well on private property located on the opposite side of the concrete-lined channel.
- Shallow monitoring well will not exceed a depth of 30 feet.

- EPD will approve the location of the proposed methane monitoring point associated with MM-4. The proposed point will be located on a flat portion of land on the edge of the concrete-lined channel across from MM-4. This location will be accessible to a truck-mounted auger drill rig.
- City will be responsible for disposal of solid and liquid waste associated with installation and sampling of the borings and monitoring wells.
- JV will perform the utility 1-call.

## **Task 2 – Cascade Road Groundwater Contamination and Methane Gas Issues**

During the February 2005 meeting, the EPD requested that the City address groundwater contamination and methane gas issues associated with the Cascade Road Landfill as part of the City's proposed response to the Consent Order for the East Confederate Road Landfill. The EPD also stated that if groundwater contamination and methane gas issues at the Cascade Road Landfill were not addressed, a Consent Order and associated fines would be issued.

The JV proposes to address the groundwater contamination issues by initiating an ACM. The EPD indicated that the JV could implement the modifications to the Cascade Road Landfill gas collection system that are described in Roy F. Weston, Inc.'s report *Submittal of Methane Gas Remediation Plan Phase II* (September 2000). The EPD approved the Weston plan on March 31, 2003; however, because the plan is almost 5 years old, the JV will review it to determine if implementation of the proposed modifications are relevant.

### **Task 2a – Assessment of Corrective Measures**

Chlorinated solvents were detected at concentrations that exceeded the MCL at monitoring well GWC-10. The JV will develop and implement a strategy for initiating and completing the ACM for groundwater at the Cascade Road Landfill. These activities will include the installation of two additional monitoring wells (a bedrock monitoring well near GWC-10 and a shallow monitoring well northwest of GWC-10) to determine the vertical and horizontal extent of chlorinated solvents.

The JV will collect groundwater samples from the two newly installed wells for the analysis of VOCs. In addition, the newly installed wells and up to six previously installed wells will be analyzed for natural attenuation parameters (total organic carbon, nitrates, sulfates, and ferrous iron) to determine if reductive dechlorination is occurring in groundwater. The test data collected during this effort and available site information will be assessed to prepare an ACM Report for submission to the EPD. The ACM Report will be prepared in accordance with the EPD's ACM guidance documentation. The JV will prepare draft and final versions of the ACM Report. The draft report will be submitted for the City's review and comment. Following the incorporation of the City's review comments, a final report will be submitted to the EPD.

**Assumptions:**

- Drilling locations are accessible with a truck-mounted drill rig.
- The bedrock monitoring well will not exceed a depth of 75 feet.
- Shallow monitoring well will not exceed a depth of 30 feet.
- City will be responsible for disposing of solid and liquid waste associated with installing and sampling the borings and monitoring wells.
- JV will perform the utility 1-call.

**Task 2b – Methane Gas Issues**

The modifications described in the Weston plan (September 2000) were proposed to mitigate methane gas concentrations exceeding the LEL at methane monitoring points MM-1S, -1D, -2S, -2D, -5, -6, -8, -10, and -11. Since the Weston plan was created, additional methane gas values have been collected and improvements to the system have been made. The JV will review current landfill gas conditions and the improvements to the system to determine if the tasks proposed in the Weston plan are applicable or need to be revised. If necessary, the JV will revise the Weston plan to include text and figures describing any changes to the existing gas collection system and methane monitoring network. If building monitoring systems are required, these will be described conceptually as typical equipment types and will not be presented in drawings. Monitoring and operational procedure changes will also be described. Required pipe sizes and equipment capacities will be computed and compared to the existing pipe sizes and equipment capacities.

**Assumptions:**

- No more than six additional drawings or figures will be required.
- JV will review the following information, which will be provided by the EPD:
  - Permit and local regulatory requirements defining the content of the plan
  - As-builts of the existing landfill gas collection system and landfill
  - Functional capabilities or specifications for the existing gas control systems (such as maximum flow rate capacity and horsepower)
  - Operational data from the past year
- Costs to implement the landfill gas remediation plans will not be provided in this proposal, because the strategies for individual landfills have not been developed.

**Task 3 – Key Road Groundwater Contamination and Methane Gas Issues**

During the February 2005 meeting, the EPD requested that the City address groundwater contamination and methane gas issues associated with the Key Road Landfill as part of the City's proposed response to the East Confederate Road Landfill Consent Order. The EPD



also stated that if groundwater contamination and methane gas issues at Key Road Landfill are not addressed, a proposed Consent Order and associated fine will be issued. The JV proposes to address the groundwater contamination issues as follows:

- Initiate ACM activities to evaluate corrective measures to address historical VOC contamination in the vicinity of well GWC-2.
- Conduct investigation activities to evaluate the source and extent of mercury contamination in the vicinity of well GWC-4.
- Conduct investigation activities to assess if groundwater contamination identified on the APAC facility located northwest of the Key Road Landfill is associated with the Landfill.

The EPD indicated that the JV could implement the modifications to the Key Road Landfill gas collection system that are described in Roy F. Weston, Inc.'s report *Revised Methane Gas Remediation Plan* (September 29, 2002). The EPD approved the Weston plan on March 31, 2003; however, because the plan is almost 5 years old, the JV will review it to determine if implementation of the proposed modifications are relevant.

#### **Task 3a – Groundwater Contamination Issues**

Contaminants have consistently been detected at monitoring wells GWC-4 and GWC-2 at concentrations above established groundwater protection standards (GWPSs) for the site. The following parameters have been detected at concentrations above the GWPSs in groundwater at GWC-2 during the past four sampling events: benzene (May 2003, November 2003), chloroethane (May 2003, November 2003), methylene chloride (May 2003, November 2003, May 2004), and tetrachloroethylene (PCE) (May 2003 and November 2003). No parameters were detected above the GWPS in GWC-2 during the November 2004 sampling event. During the past four sampling events, mercury has been detected at concentrations that exceeded the GWPS at GWC-4B. In addition, mercury was also detected above the GWPS in groundwater from well GWA-2 during the November 2004 sampling event.

#### **ACM GWC-2**

Based on communication with the EPD, an ACM will be required for the historical VOC contamination detected at GWC-2. The JV will develop and implement a strategy for initiating and completing the ACM for groundwater in the vicinity of GWC-2. These activities will include the installation of two additional monitoring wells (a bedrock monitoring well near GWC-2 and a shallow monitoring well north of GWC-10) to determine the vertical and horizontal extent of historical contamination.

The JV will collect groundwater samples from the two newly installed wells for analysis of VOCs. In addition, the newly installed wells and up to six previously installed wells will be analyzed for natural attenuation parameters (total organic carbon, nitrates, sulfates, and ferrous iron) to determine if reductive dechlorination is occurring in groundwater. The test

data collected during this effort and available site information will be assessed to prepare an ACM Report for submission to the EPD. The ACM Report will be prepared in accordance with the EPD's ACM guidance documentation. The JV will prepare draft and final versions of the ACM Report. The draft report will be submitted for the City's review and comment. Following the incorporation of the City's review comments, a final report will be submitted to the EPD.

#### *Groundwater Investigation (GWB-4)*

Because wells GWB-4 and GWA-2 are located cross-gradient and upgradient of the landfill, respectively, the detections of mercury in these wells appear to be associated with an offsite source. The JV will attempt to identify the source of the mercury at GWB-4 by performing the following tasks:

1. Perform a records search of historical industrial activities using Environmental Data Resources, Inc. (EDR);
2. Collect and analyze up to 20 soil and sediment samples from upgradient locations;
3. Install one temporary monitoring well hydraulically upgradient of GWC-4B and analyze groundwater for mercury; and
4. Conduct a speciation analysis of the groundwater sample collected from GWB-4B to identify the type of mercury present in groundwater.

A brief technical memorandum will present the findings of the investigation.

If an offsite source of mercury is identified, the JV will recommend that no further action be associated with GWB-4. If an offsite source is not identified, the EPD will require ACM activities, including the installation of two additional monitoring wells (a bedrock monitoring well near GWB-4 and a shallow monitoring well southeast of GWB-4) to determine the vertical and horizontal extent of mercury contamination in groundwater.

#### *Groundwater Investigation (APAC facility)*

Groundwater contamination was identified on the APAC facility located northeast of the Key Road Landfill. APAC conducted investigation activities in an attempt to demonstrate that groundwater contamination on the APAC property was from an alternative source. The EPD accepted the demonstration and attributed contamination on the facility from an alternative source. Based on communication with the EPD, the City will be required to assess if contamination on the APAC facility is associated with the Key Road Landfill.

The JV proposes to conduct the following activities to evaluate if the Key Road Landfill is the source of groundwater contamination:

- Conduct a records review of the APAC investigation and demonstration data.



- Install a shallow monitoring well in the southeastern portion of the landfill between monitoring well GWA-1 and piezometer PZA-1.
- Collect groundwater samples from piezometer PZA-1 and the newly installed monitoring well for VOC analyses during the first semiannual sampling event of 2005.
- Identify monitoring wells on the APAC facility to collect water level measurement in conjunction with first semiannual sampling event of 2005 to evaluate the groundwater flow direction between the Key Road Landfill and the APAC facility.

The analytical results of groundwater samples collected from monitoring wells GWA-1, GWB-1, PZA-1, and the newly installed well, along with the groundwater flow data, will be used to determine whether Key Road Landfill is the source of contamination on the APAC facility. A brief technical memorandum will present the findings of the investigation.

If the investigation indicates that Key Road Landfill is not the source of groundwater contamination on the APAC facility, the JV will recommend that no further action be required. If Key Road Landfill is identified as the source of contamination on the APAC facility, the EPD will require ACM activities to be conducted.

#### Assumptions:

- Until the activities associated with well GWB-4 and the APAC facility is conducted, the completion of an ACM with respect to this issue is premature. For this reason, costs associated with preparation of an ACM are not included in this proposal.
- Costs associated with the installation of additional wells in the vicinity of GWB-4 are also not included in this proposal.
- Drilling locations are accessible with a truck-mounted drill rig.
- Bedrock monitoring well will not exceed a depth of 80 feet.
- Shallow monitoring well will not exceed a depth of 45 feet.
- City will be responsible for disposing of solid and liquid waste associated with installing and sampling the borings and monitoring wells.
- JV will perform the utility 1-call.

#### Task 3b – Methane Gas Issues

The modifications described in the *Revised Methane Gas Remediation Plan* (Weston, 2002) were recommended to mitigate methane gas values exceeding the LEL at methane monitoring points MM-1, -2, -3, -9, -10, -11, -17, and -18. Since the 2002 plan was created, additional methane gas values have been collected and improvements to the system have been made. The JV will review the current landfill gas conditions as well as the improvements to the system to determine if the tasks recommended by Weston are

warranted or need to be revised. If necessary, the JV will revise the Weston plan to include text and figures describing any changes to the existing gas collection system and methane monitoring network. If building monitoring systems are required, these will be described conceptually as typical equipment types and will not be presented in drawings. Monitoring and operational procedure changes will also be described. Required pipe sizes and equipment capacities will be computed and compared to the existing pipe sizes and equipment capacities.

**Assumptions:**

- No more than six additional drawings or figures will be required.
- JV will review the following information, which will be provided by the EPD:
  - Permit and local regulatory requirements defining the content of the plan
  - As-builts of the existing landfill gas collection system and landfill
  - Functional capabilities or specifications for the existing gas control systems (such as maximum flow rate capacity and horsepower)
  - Operational data from the past year.
- Costs to implement landfill gas remediation plans are not provided in this proposal, because the strategies for individual landfills have not been developed.

**Task 4 – Cascade Road Landfill Gas System Repair**

A portion of the piping associated with the landfill gas collection system is filled with water, preventing the flow of extracted landfill gas. The City believes the water has accumulated in the piping where landfill material has settled and caused a sag (low spot) in the line. The City has requested that the JV contract and provide oversight to repair the sag. The following tasks will be performed to repair the sag:

- Preparation of a complete description of the repair work to be done based on the City's as-built drawings and materials list and preparation of a subcontract agreement to repair the pipe. No additional drawings or specifications will be prepared.
- Excavation of existing cover materials and municipal solid waste (MSW).
- Identification of sag within pipe.
- Placement of gravel material beneath and around existing pipe.
- Placement of geotextile over gravel.
- Backfill of trench with excavated waste material.
- Repair of cover system using site-specified clay material and vegetative soil.

Once the repair of the pipe is complete, a technical memorandum documenting the repair activities will be submitted to the City. The TM will include one design drawing showing

the completed as-built elevations of the repaired piping and photographs documenting the construction work.

**Assumptions:**

- As-built information provided by the City will be accurate and adequate to design the repair such that connections with and impacts on upstream and downstream parts of the gas control system can be evaluated.
- A subcontractor will be selected by the JV without competitive bids.
- All waste and other materials will be replaced into the excavation and the landfill cover will be replaced. This may result in a local mound on the landfill cover above the excavation.
- The repair will require four days of field time. A JV engineer will observe all work during the repair, on-site full time.
- Landfill gas system repair is limited to removing the sag. Repair of pipe damaged by landfill settlement (broken, crimped, sheared, etc.) is not included.
- Odors from the excavation are expected to be limited and temporary and no odor control measures will be needed. Continuous explosive gas monitoring at the work site will be necessary and ventilation by fans or other means will be necessary to keep methane concentrations below flammability and explosive limits in the work area.

## Schedule

Tasks 1 through 4 will be initiated within 7 days of receipt of the written notice to proceed from the City. DPT and monitoring well installation activities will be conducted prior to the initiation of the May 2005 semiannual sampling event.

## Subcontracting and Outside Services

In the performance of the services outlined herein, the JV will use the following team of subcontractors, which provide specialty services:

<u>SUBCONTRACTORS</u>	<u>SERVICE</u>	<u>CONTRACT AMOUNT</u>
Gulf Coast Analytical Laboratories, Inc.	Analytical Laboratory	\$ 10,406

The subcontractors listed above have supported the City Landfill Program since 2000. To ensure program continuity, the JV proposes to use the same subcontractors. These subcontractors are in addition to the JV pool of team subcontractors approved by the prime

contract. Acceptance of this proposal shall be deemed approval by the JV to contract with the specialty subcontractors as required.

## Cost

This work will be performed under the terms and conditions of Architectural and Engineering Services Agreement between the City and the JV. The work will be performed using the per diem rates and expense markups established in this contract. A detailed breakdown of labor and expense costs is provided on Tables 1 (Response to EPD Consent Order – East Confederate Road Landfill), Table 2 (Cascade Road Groundwater Contamination and Methane Gas Issues), Table 3 (Key Road Groundwater Contamination and Methane Gas Issues), and Table 4 (Repair Cascade Road Landfill Gas Header Pipe). A simplified breakdown of costs by task is presented on the following table.

Task Description	Estimated Cost (\$)
<b>TASK 1: Respond to EPD Consent Order – East Confederate Road Landfill</b>	
Task 1a – Assessment of Corrective Measures	\$61,421
Task 1b – Methane Gas Issues	\$10,381
<b>Subtotal Task 1</b>	<b>\$77,803</b>
<b>Task 2 – Cascade Road Landfill</b>	
Task 2a – Assessment of Corrective Measures	\$56,852
Task 2b – Methane Gas Issues	\$55,986
<b>Subtotal Task 2</b>	<b>\$112,838</b>
<b>Task 3 – Key Road Landfill</b>	
Task 3a – Groundwater Contamination Issues	\$94,216
Task 3b – Methane Gas Issues	\$54,758
<b>Task 3 Subtotal</b>	<b>\$148,974</b>
<b>Task 4 – Cascade Road Landfill Gas System Repair</b>	<b>\$64,524</b>
<b>TOTAL PROJECT COSTS (Tasks 1 through 4)</b>	<b>\$404,140</b>

MR. SWOPE  
PAGE 12  
FEBRUARY 25, 2005

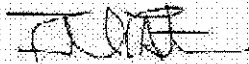
We look forward to working with the City on this project. If you have any questions or require additional information, please contact me at (770) 604-9182, extension 348, or David Beverly at extension 598.

Sincerely,

CH2M HILL/WRJ - A JOINT VENTURE



Gerri Dickerson, P.E.  
Vice President



Fred Artis, WRJ, Inc.  
Deputy Program Manager

Attachment

- c. Donna Owens, Deputy Commissioner, City of Atlanta  
David Beverly, CH2M HILL/WRJ JV

**TABLE 1**  
**SUMMARY OF COST ESTIMATE -**  
**City of Atlanta A/E Services Contract - FC-7819-04C**  
**East Confederate Road Consent Order Response**

1. LABOR		Task 1 - East Confederate Road Landfill				Total	Total
Labor Category	Labor Rate	Task 1a - Groundwater ACM	Task 1b - Methane Gas methane Monitoring Point Installation	Hours	Cost		
Engineer 8	\$174.74	1	11	12	\$2,097		
Engineer 7	\$150.14		5	5			
Engineer 6	\$123.11	177	28	205	\$25,238		
Engineer 5	\$100.13			0	\$0		
Engineer 4	\$83.45	81	25	106	\$8,847		
Engineer 3	\$71.79	4	1	5	\$359		
OFFICE/Designer 1	\$55.96	36	4	40	\$2,238		
Designer 4	\$92.22	42		42	\$3,873		
<b>TOTAL LABOR</b>	<b>Hours</b>	<b>341</b>	<b>74</b>	<b>415</b>			<b>\$43,402</b>
	<b>\$</b>	<b>34,900</b>	<b>8,502</b>				
2. INTERNAL EXPENSES						Total	Total
Category	Rate	# of Units	# of Units	Quantity	Cost		
Copies (each)	\$0.06	5800		5,000	\$360		
Car Travel (per day)	\$42.00	1		2	\$84		
Truck Travel (per day)	\$68.00	10		12	\$816		
<b>TOTAL INTERNAL EXPENSES</b>		<b>\$1,070</b>	<b>\$190</b>				<b>\$1,260</b>
3. EXTERNAL EXPENSES						Total	Total
Category	Rate				Cost		
Meals/Lodging	Cost				\$0		
Shipping/Postage	Cost				\$700		
Subcontracting: Laboratory	Cost	\$580	\$120		\$3,051		
Subcontracting: Drilling/DPT/Surv	Cost	\$3,051			\$27,540		
Equipment/Supplies	Cost	\$20,520	\$7,020		\$250		
Miscellaneous	Cost	\$1,000	\$250		\$300		
<b>SUBTOTAL EXTERNAL EXPENSES</b>		<b>\$25,451</b>	<b>\$7,690</b>				<b>\$33,141</b>
<b>TASK TOTAL</b>		<b>\$61,421</b>	<b>\$15,982</b>				<b>\$77,803</b>

TABLE 2

**SUMMARY OF COST ESTIMATE -**  
**City of Atlanta A/E Services Contract - FC-7819-04C**  
**Cascade Road Groundwater and Methane Gas Issues**

1. LABOR		Task 2 - Cascade Road Landfill		Task 2a - Groundwater		Task 2b - Methane Gas		Total	Total
Labor Category	Labor Rate	ACM	Review/Revise Plan	Hours	Cost	Hours	Cost	Hours	Cost
Engineer 8	\$174.74	2	62	64	\$11,183				
Engineer 7	\$150.14		160	160	\$27,454				
Engineer 6	\$123.11	162	61	223	\$0				
Engineer 5	\$100.13			0	\$0				
Engineer 4	\$83.46	80		80	\$6,677				
Engineer 3	\$71.79	1	2	3	\$215				
OFFICE/Designer 1	\$55.96	33		37	\$3,917				
Designer 4	\$92.22	45	90	135	\$12,450				
<b>TOTAL LABOR</b>	<b>Hours</b>	<b>323</b>	<b>412</b>	<b>735</b>	<b>\$85,918</b>				
	<b>\$</b>	<b>33,038</b>	<b>\$52,880</b>						
2. INTERNAL EXPENSES		# of Units		Total		Total		Total	
Category	Rate	# of Units	# of Units	Quantity	Cost	Quantity	Cost	Quantity	Cost
Copies (each)	\$0.06	10,500	10,500	21,000	\$1,260				
Car Travel (per day)	\$42.00	1	3	4	\$168				
Truck Travel (per day)	\$68.00	10		10	\$680				
<b>TOTAL INTERNAL EXPENSES</b>		<b>\$1,352</b>	<b>\$756</b>		<b>\$2,108</b>				
3. EXTERNAL EXPENSES		Category		Rate		Total		Total	
Meals/Lodging	Cost								
Shipping/Postage	Cost								
Subcontracting: Laboratory	Cost	\$550	\$350		\$0				
Subcontracting: Drilling/DPT/Surv	Cost	\$2,592			\$900				
Equipment/Supplies	Cost	\$17,820			\$2,592				
Miscellaneous	Cost	\$1,000			\$17,820				
	Cost	\$500	\$2,000		\$1,000				
<b>SUBTOTAL EXTERNAL EXPENSES</b>		<b>\$22,462</b>	<b>\$2,350</b>		<b>\$24,812</b>				
<b>TASK TOTAL</b>		<b>\$56,852</b>	<b>\$55,986</b>		<b>\$112,838</b>				



TABLE 3

**SUMMARY OF COST ESTIMATE -**  
**City of Atlanta A/E Services Contract - FC-7619-04C**  
**Key Road Groundwater and Methane Gas Issues**

**1. LABOR**

Labor Category	Labor Rate	Task 3 - Key Road Landfill		Total Hours	Total Cost
		Task 3a - Groundwater Contamination Issues	Task 3b - Methane Gas Review/Revise Plan		
Engineer 8	\$174.74	5	53	68	\$11,882
Engineer 7	\$150.14		160	160	\$24,022
Engineer 6	\$123.11	268	57	325	\$40,011
Engineer 5	\$100.13			0	\$0
Engineer 4	\$83.46	150		150	\$12,519
Engineer 3	\$71.79	3	2	5	\$359
OFFICE/Designer 1	\$55.96	43	32	75	\$4,197
Designer 4	\$92.22	63	90	150	\$13,833
<b>TOTAL LABOR</b>	<b>Hours</b>	<b>629</b>	<b>404</b>	<b>933</b>	<b>\$106,823</b>

**2. INTERNAL EXPENSES**

Category	Rate	Task 3 - Key Road Landfill		Total Quantity	Total Cost
		# of Units	# of Units		
Copies (each)	\$0.06	14500	12,500	27,000	\$1,620
Car Travel (per day)	\$42.00	7	3	10	\$420
Truck Travel (per day)	\$68.00	15		15	\$1,088
<b>TOTAL INTERNAL EXPENSES</b>		<b>\$2,232</b>	<b>\$876</b>		<b>\$3,128</b>

**3. EXTERNAL EXPENSES**

Category	Rate	Task 3 - Key Road Landfill		Total Quantity	Total Cost
		# of Units	# of Units		
Meals/Lodging	Cost				\$0
Shipping/Postage	Cost	\$930	\$350		\$1,250
Subcontracting: Laboratory	Cost	\$4,763			\$4,763
Subcontracting: Drilling/DPT/Surv	Cost	\$29,150			\$29,150
Equipment/Supplies	Cost	\$2,000	\$250		\$250
Miscellaneous	Cost	\$600	\$1,000		\$1,600
<b>SUBTOTAL EXTERNAL EXPENSES</b>		<b>\$37,423</b>	<b>\$1,600</b>		<b>\$39,023</b>
<b>TASK TOTAL</b>		<b>\$94,216</b>	<b>\$54,758</b>		<b>\$148,974</b>



**TABLE 4**  
**SUMMARY OF COST ESTIMATE -**  
**City of Atlanta A/E Services Contract - FC-7619-04C**  
**Cascade Road Landfill Gas Header Pipe Repair**

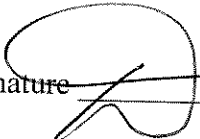
1. LABOR		Task 4 - Cascade Road Landfill Gas Header Pipe Repair			
Labor Category	Labor Rate	Hours	Total Hours	Total Cost	
Engineer 8	\$174.74	21	21	\$3,670	
Engineer 7	\$150.14	20			
Engineer 5	\$123.11	40	40	\$4,924	
Engineer 5	\$100.13	40	40	\$4,005	
Engineer 4	\$83.46	0	0	\$0	
Engineer 3	\$71.79	5	5	\$359	
OFFICE/Designer 1	\$55.96	13	13	\$727	
Designer 4	\$32.22	25	25	\$2,306	
<b>TOTAL LABOR</b>	<b>Hours</b>	<b>184</b>	<b>184</b>		
	<b>\$</b>	<b>18,994</b>		<b>\$18,994</b>	
2. INTERNAL EXPENSES					
Category	Rate	# of Units	Total Quantity	Total Cost	
Copies (each)	\$0.06	6,000	6,000	\$360	
Car Travel (per day)	\$42.00	3	3	\$126	
Truck Travel (per day)	\$68.00	8	8	\$544	
<b>TOTAL INTERNAL EXPENSES</b>		<b>\$1,030</b>		<b>\$1,030</b>	
3. EXTERNAL EXPENSES					
Category	Rate		Total Cost		
Meals/Lodging	Cost		\$0		
Shipping/Postage	Cost	\$300	\$300		
Subcontracting: Laboratory	Cost		\$0		
Subcontracting: Pipe Repair	Cost	\$43,200	\$43,200		
Equipment/Supplies	Cost	\$1,000	\$1,000		
Miscellaneous	Cost		\$0		
<b>SUBTOTAL EXTERNAL EXPENSES</b>		<b>\$44,500</b>		<b>\$44,500</b>	
<b>TASK TOTAL</b>		<b>\$64,524</b>		<b>\$64,524</b>	


# TRANSMITTAL FORM FOR LEGISLATION

To: Greg Pridgeon, Mayor's Office

From: Department of Public Works

Contact (Name): James Swope

Commissioner's Signature 

Director's Signature: 

Committee(s) of Purview: City Utilities Committee Committee Deadline: \_\_\_\_\_

Committee Meeting Date(s): \_\_\_\_\_

City Council Meeting Date: April 18, 2005

## CAPTION:

A RESOLUTION AUTHORIZING THE MAYOR TO ISSUE A NOTICE TO PROCEED TO CH2M HILL/WRJ-JV FOR FC-7619-03C, ANNUAL CONTRACT FOR ARCHITECTURAL AND ENGINEERING SERVICES TO PERFORM GROUNDWATER SAMPLING, TESTING, ANALYTICAL SERVICES, REPORT WRITING AND OTHER PROFESSIONAL CONSULTATION AND ENGINEERING SERVICES AT THE CITY'S CLOSED LANDFILLS AND AT VARIOUS LOCATIONS ON BEHALF OF THE DEPARTMENT OF PUBLIC WORKS IN AN AMOUNT NOT TO EXCEED SEVEN HUNDRED SIXTY-THREE THOUSAND EIGHT HUNDRED THIRTY-FIVE DOLLARS (\$763,835.00); ALL CONTRACTED WORK SHALL BE CHARGED TO AND PAID FROM FUND ACCOUNT AND CENTER NUMBERS: 1C28 574001 M31H020491AA, AND 2P01 524001 M38201.

## BACKGROUND/PURPOSE/DISCUSSION:

The City has closed all of its landfills and must preform post closure care on each of them for a period of not less than thirty years. The required post closure care includes monitoring, maintenance and operation of systems designed to protect the health and safety of the communities in which the facilities are located. In order to meet the closure and post closure requirements certain activities are being recommended to be preformed by CH2M HILL/WRJ-JV.

## FINANCIAL IMPACT (if any):

This resolution will authorize the use of the existing annual Architectural and Engineering contract and will not require additional funding.

## Mayor's Staff Only

Received by Mayor's Office 3.28.05 (Date)  Reviewed by:  (Initials) \_\_\_\_\_ (Date)

Submitted to Council \_\_\_\_\_ (Date)

Action by Committee: Approved \_\_\_\_\_ Adversed \_\_\_\_\_ Held \_\_\_\_\_ Amended \_\_\_\_\_

Substitute \_\_\_\_\_ Referred \_\_\_\_\_ Other \_\_\_\_\_